Title (en)

NETWORK-BASED POSITIONING MECHANISM AND REFERENCE SIGNAL DESIGN IN OFDMA SYSTEMS

Title (de)

NETZWERKBASIERTER POSITIONIERUNGSMECHANISMUS UND REFERENZSIGNALENTWURF IN OFDMA-SYSTEMEN

Title (fr)

MÉCANISME DE POSITIONNEMENT BASÉ SUR UN RÉSEAU ET CONCEPTION DE SIGNAL DE RÉFÉRENCE DANS DES SYSTÈMES OFDMA

Publication

EP 2502454 B1 20180509 (EN)

Application

EP 10831135 A 20101117

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- US 26182609 P 20091117
- US 30261810 P 20100209
- US 35609510 P 20100618
- US 92745810 A 20101116
- CN 2010078827 W 20101117

Abstract (en)

[origin: US2011117926A1] A network-based positioning mechanism is proposed. A serving BS first allocates radio resource to a target UE for network-based positioning in a wireless communication system. The target UE then transmits a positioning reference signal (PRS) to the serving BS and a plurality of cooperative BSs at the same time instant. All the cooperative BSs then conduct PRS detection and TOA measurements. Finally, the serving BS conducts positioning estimation based on the TOA measurement results. In one novel aspect, only one PRS transmission is required in one positioning opportunity for one positioning result. Candidates of PRS are selected with respect to different scenarios and allocated in a PRS resource region. Multiple positioning opportunities and multiple reference signals may be multiplexed over time, frequency or code domain in the PRS resource region. In one embodiment, the PRS is configured in such a way that both radio resource consumption and interference is minimized.

IPC 8 full level

H04W 64/00 (2009.01)

CPC (source: EP US)

H04W 64/00 (2013.01 - EP US)

Citation (examination)

- WO 2011016804 A1 20110210 - ANDREW LLC [US], et al
- US 2009176507 A1 20090709 - WU SHIQUAN [CA], et al

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CN108702726A

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DOCDB simple family (publication)

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DOCDB simple family (application)

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